



# ClimatePlan



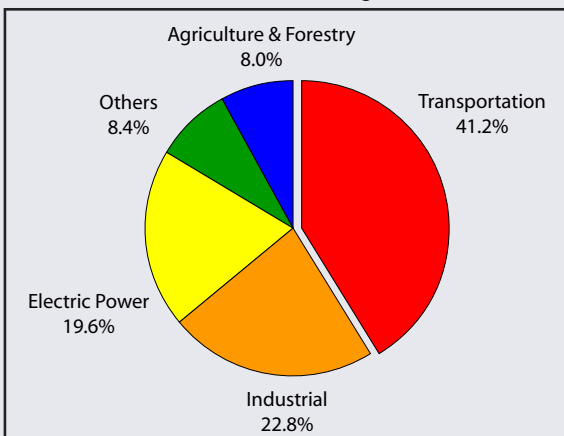
Addressing the land use decisions that shape our climate and our lives

# ClimatePlan

ClimatePlan is a new network of leading organizations that have come together to inform and educate California's local, regional and state decision-makers about the global warming-land use connection.

The ClimatePlan network will work to promote land use policies and public investment to achieve AB 32, California's landmark Global Warming Solutions Act, greenhouse gas emission reduction targets, improve quality of life in California and serve as a model for national action.

Sources of California's Climate Change Emissions in 2004



(Source: California Air Resources Board)

## Please join us:

Does your organization work on smart growth and climate issues? Are you interested in thinking creatively about the best ways to accommodate California's growth while preserving a high quality of life? We invite you to join our partnership.

Contact us at [climateplan@gmail.com](mailto:climateplan@gmail.com).

Designing and carrying out strategies to achieve the AB 32 GHG reduction targets will not be easy. ClimatePlan partners will provide research, communications, venues for public dialogue, and advocacy for administrative and legislative reform to ensure that decision-makers recognize that smart land use can be a tool to combat global warming. Fortunately, the same land uses that reduce GHG pollution will promote housing choices, protect the environment, and our health, and improve quality of life for all of California.

For up to date information about Climate Plan efforts across the state visit us at : [www.climateplanca.org](http://www.climateplanca.org).

*"Successful greenhouse gas reduction strategies will require engagement across a range of sectors including environmental groups, labor, churches, and the building community."*

*- Carl Anthony, Ford Foundation*

## Current ClimatePlan Partners:



# The global warming - land use connection

Global warming has become the defining issue of our time. Without bold and decisive action now, California, the nation, and the world will face devastating consequences including a shrinking water supply, dangerously warmer temperatures, deteriorating air quality, intense flood risk, declining agricultural production, and a major increase in wildfires.

California has taken an historic leadership role in combating global warming with legislative and executive action that calls for significant reductions in greenhouse gas (GHG) emissions. While the emphasis for emissions reductions is often on technological remedies, how and where we decide to grow may ultimately determine our success in meeting emission reduction targets.

For the past 50 years, office parks, strip malls and tract houses linked by miles and miles of freeways have been the dominant form of development. This trend of poorly planned growth -- sprawl -- forces Californians to spend more time behind the steering wheel each year, increasing congestion, spewing GHG pollution, contaminating our water, paving over our farmlands, forest and open space and jeopardizing our health.

Poorly planned development is one of the biggest causes of GHG pollution. Because so many new communities require a car for every trip, vehicle miles traveled (VMT) has increased at nearly twice the rate of California's population. Today, 41% of California's GHG emissions are produced by the transportation sector.

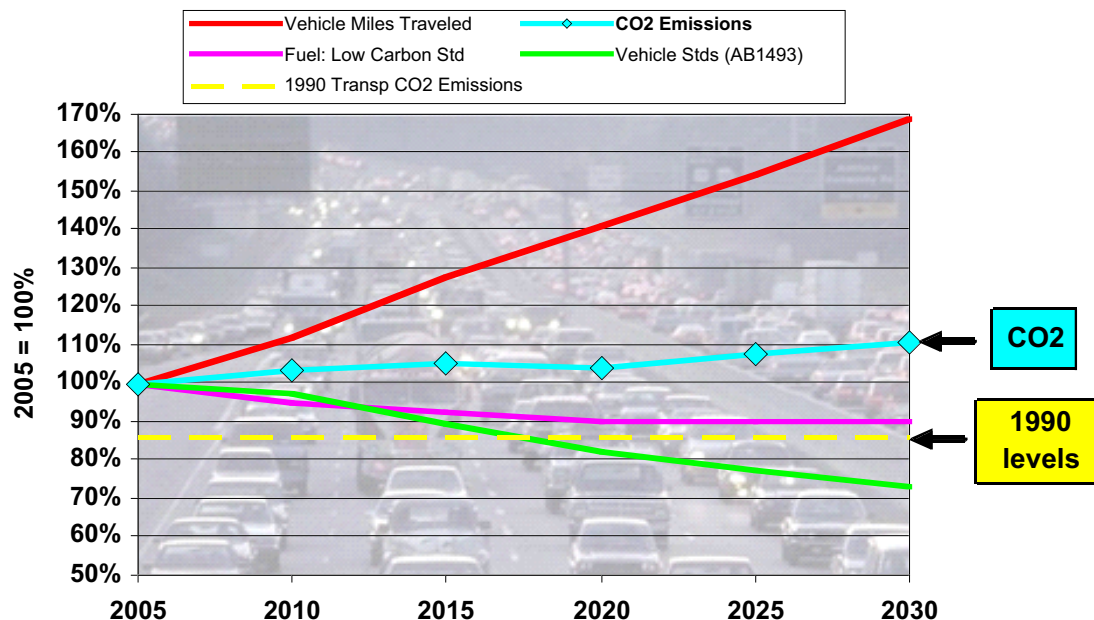
Unless we change our growth and development patterns, VMT will increase by 70% in the next 30 years, canceling out the emissions benefits of improved fuel economy and low carbon fuel options.

(As illustrated below.)

## AB 32: the challenge

AB32, the Global Warming Solutions Act of 2006 mandates the reduction of GHG emissions to 1990 levels by the year 2020. The Governor's Climate Action Team (CAT) expects at least 10% of the 2020 reductions mandated by AB 32 come from "Smart Land Use and Intelligent Transportation." Meeting the Governor's 2050 targets of an 80% reduction in GHG emissions will simply not be possible without changing our growth patterns. It is critical for us to begin making fundamental changes now.

Projected Passenger Vehicle CO2 Emissions with California Motor Vehicle and Fuel GHG Standards and Projected Growth in Vehicle Miles Traveled (VMT)



Based on CEC, CARB and CALTRANS data



# Land Use Strategies for the Next Generation

## Defining where growth should and should not occur

The town of Windsor, CA has created plans and policies to define where it wants to grow and where it does not, helping to revitalize its downtown and preserve farmland. The result is new mixed-use buildings and the village green which now serve as the focus of community events where local businesses are thriving.

## Mixing uses

Creating developments and neighborhoods with housing, retail, jobs, schools, and parks nearby makes it easier for people to walk or bike to destinations. The City of Brea revitalized its downtown with increased housing choices, mixed-use development and pedestrian-friendly design.

## Creating compact development

Compact development makes public transit an effective option for many trips, and reduces development pressure on open space. Residents in the Gaia building in downtown Berkeley can walk to a BART station, multiple bus lines, the University, and to shops, restaurants, and local parks.

*“The concern about achieving AB 32 Goals (including low carbon, sulfur and new fuel standards), should be addressed at the Regional Transportation Plan (RTP) level. The RTP has the potential to change the way to plan and build for the future. The question for policymakers is not whether we should or should not grow, but how to grow in a way that minimizes air quality impacts and maximize quality of life benefits.”*

*- John Barna, CA Transportation Commission*



Windsor, California. (Courtesy of Transportation and Land Use Coalition)



Downtown Brea, California. (Courtesy of Local Government Commission)



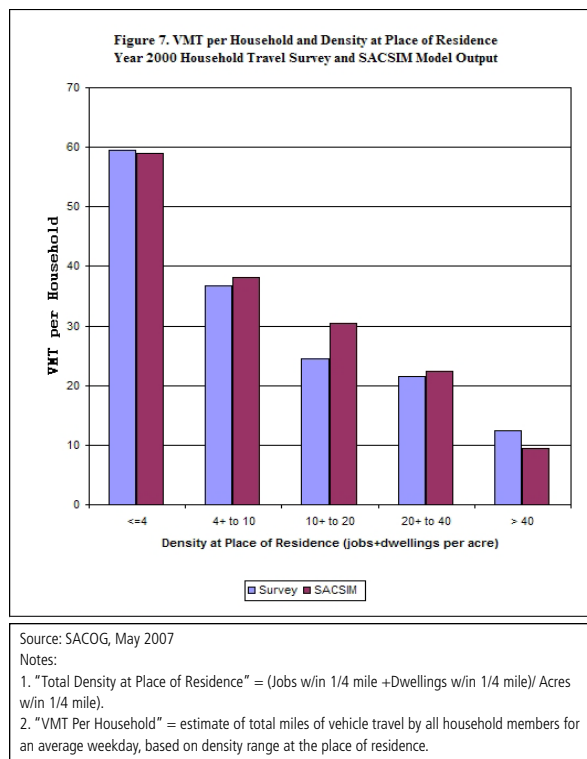
The Gaia building, Berkeley, California. (Courtesy of the Greenbelt Alliance)

# Smart land use reduces GHG pollution

## Well-designed, mixed-use neighborhoods minimize GHG emissions in four primary ways:

### Fewer and Shorter Car Trips

When walking, bicycling and public transit are convenient, people use them. In the San Francisco Bay Area, a new study found that when people both live and work within a half a mile of a station, 42 per cent ride transit to work. Conversely, just 4% of people ride transit to work if they neither live nor work within half a mile of a transit station. In addition, when cars are used in mixed-use, compact communities, the trips are usually shorter. Significant reduction in vehicle travel is typically realized when housing densities of 12-20 units per acre are achieved. The Sacramento region experience supports this trend, as shown on the graph below.



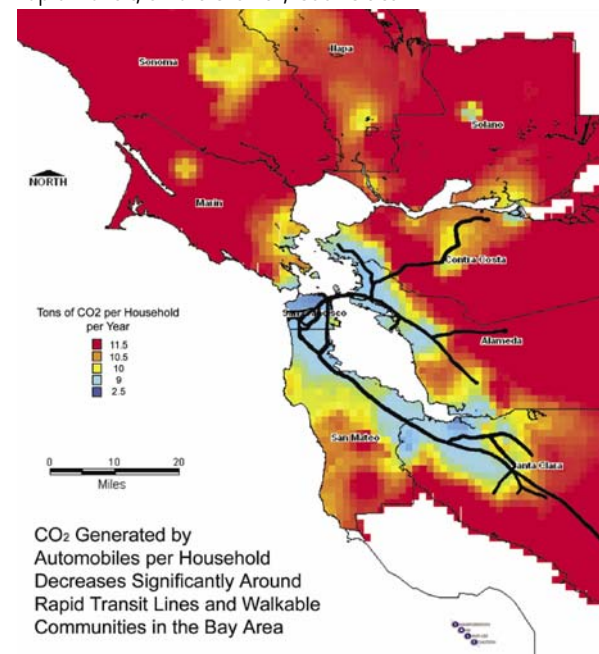
### Less Congestion on Roads

In stop-and-go conditions, cars can emit up to three times more CO<sub>2</sub> than cars traveling in free-flowing traffic. Auto-oriented growth along already congested highways slows everyone down and results in higher regional GHG pollution. Instead of widening highways, which has been shown to induce even more vehicle travel, we should minimize demand with better land use, public transit, operational improvements, and pricing.

### Energy Efficiency

Compact walkable communities require less infrastructure and consume less electricity, less water, and less natural gas than sprawling, car-centered development (SACOG Placer County analysis). A 2001 Residential Energy Use survey by the U.S. Energy Information Administration found that suburban residents consumed 21% more energy and incurred 27% higher energy costs than residents of cities. Recently, the California Energy Commission (CEC) issued a report that quantifies the direct and embedded energy consumption of different land use patterns. (See [www.energy.ca.gov](http://www.energy.ca.gov))

### Rapid Transit, Smart Growth, Cool Cities



(Created by the Center for Neighborhood Technology, adapted by the Transportation and Land Use Coalition)

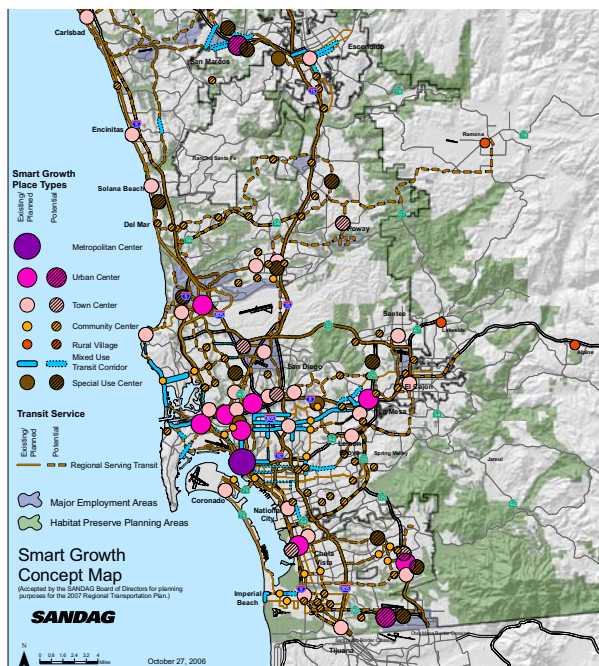
### More Natural Areas to Absorb CO<sub>2</sub>

Open space, including working forests and grasslands, naturally absorbs CO<sub>2</sub> from the atmosphere and stores it for long periods of time. When these areas are disturbed through development, the stored CO<sub>2</sub> is released back to the atmosphere, contributing to global warming. By concentrating growth in developed areas and maintaining open space, GHG emissions due to conversion can be minimized.

# Regional Planning is critical to reduce GHG pollution

Land use decisions remain a local prerogative, and some localities are shifting toward a more sustainable approach. However, implementing smarter land use policies in just a few select communities is not enough to confront California's most pressing issues; global warming; lack of affordable housing; staggering increases in congestion; inadequate transit choices; deteriorating air and water quality; and rapid loss of open space and farmland. To tackle these issues, we need to create more compact, walkable communities at a regional scale and link them together with effective transportation alternatives to single-occupant vehicles. A regional approach is critical to change travel patterns and decrease GHG emissions on a geographical scale.

That is why metropolitan regions across the state, including the San Francisco Bay Area, Sacramento, Los Angeles, and San Diego metropolitan areas have created visions for smart land use, also known as Regional Blueprints. Regional Blueprint Planning is designed to build consensus on practical solutions for managing growth. In total, nine regions, encompassing 95% of the state's population, are actively engaged in Blueprint Planning.



The San Diego Association of Governments (SANDAG) identified areas for future growth through a collaborative Blueprint Planning process.

The Sacramento Area Council of Governments (SACOG) Blueprint process resulted in a widely acclaimed preferred land-use scenario planning for the region. SACOG's adopted Blueprint Scenario will result in 33% less water consumption, a 26% decrease in average vehicle travel per new household and 7% reduction in travel time spent in heavy congestion when compared to existing land use patterns. (Base Case and Draft Preferred Scenario: Key Statistics, [www.sacog.org](http://www.sacog.org)) SACOG is now providing resources and incentives to help its cities realize this vision.

## ***Sacramento Finds Big Differences in Emissions***

*Developing new models to more accurately forecast emissions is a critical step to identifying and implementing land use strategies for GHG pollution reduction. SACOG has created one of the most sophisticated models in the country, and recently used it to review a large-scale development proposed for Placer County. SACOG found that the Blueprint scenario led to the lowest number of miles driven per new household (about 20% less than any other scenario) resulting in the least congestion, and 50% less emissions than a more spread out alternative. (Placer County Vineyards Specific Plan Comment Letter, SACOG, May 16, 2007)*



Poorly planned development leads to increased congestion.



# Good planning creates wide-ranging community benefits

While reducing GHG pollution is a compelling enough reason to promote better land use, a host of co-benefits accrue to communities that embrace smart growth principles in development.

## Increased housing choice

California needs a wide variety of housing styles including townhouses, apartments, and single family homes.

## Reduced infrastructure costs

By adopting a preferred growth scenario, SACOG estimates they could save \$16 billion in unnecessary road, water and sewer infrastructure expenditures.

## Active living and better health

Residents of walkable neighborhoods are 2.4 times more likely to get the recommended 30 minutes of daily activity than people who live in neighborhoods without walkable features.

## Less growth pressure on open space and working farms

During the 1990s, over 100,000 acres were paved over in California's Central Valley alone, and the pace of development has only accelerated since then.

## Access to jobs and activities

A study in the Bay Area found that focusing housing and jobs closer to transit would nearly double the job opportunities available for low-income communities.

## Affordable, Diverse Communities

Recent studies have shown that households in mixed-income neighborhoods experience less crime, better employment prospects and improved school performance compared to more isolated, low-income households.



Sprawl development encroaches on farmland. (Courtesy of the American Farmland Trust)



Computer-generated visioning shows how a commercial strip in Oakland could be transformed into a pedestrian friendly, mixed-use corridor with public transportation. (Courtesy of Stephen Price, Urban Advantage)

*If solutions to Greenhouse Gas Emissions are to be effective it will require regional leadership. Regional Blueprint Planning efforts are looking at the connection between transportation and energy goals. These efforts represent the type of ingenuity that we need if we are to achieve clean, reliable energy infrastructure and the kinds of communities we want in California.*

*-Jackahyne Pfannenstiel, Chairman, California Energy Commission*

# Action Steps to Combat Global Warming

**"There is a high price to delay. Delay in taking action on climate change would make it necessary to accept both more climate change, and eventually, higher mitigation costs."**

- Nicholas Stern, former chief economist at the World Bank and author of *The Stern Review on the Economics of Climate Change*

## ClimatePlan Members Actions

**Educate Stakeholders.** Work with key state agencies to ensure that land use remains a key element of AB32 implementation.

Promote legislative and budget strategies to ensure state infrastructure funds include strong smart growth criteria.

**Promote Innovations and Research.** Create a regional pilot program in the Bay Area to ensure the Regional Transportation Plan helps meet AB32 targets.

Work with local government staff and organizations to ensure general plan updates are in line with AB 32 targets, connect local government officials with state and regional agency staff to identify obstacles to efficient land use and develop strategies and funding sources to overcome them.

**Coordinate Efforts.** Work with University of California (UC) programs and leading organizations to ensure creation, compilation and dissemination of models illustrating the relationship between land-uses and GHG emissions. Educate key stakeholders about the land use and climate connection.

**Improve Land Use Modeling.** Ensure that regional transportation models fully reflect the benefits of smart growth development. Provide guidance to the California Transportation Commission on cost-effective, feasible techniques to improve the current models.

(For more information on ClimatePlan, see [www.lgc.org/climateplan](http://www.lgc.org/climateplan))

## Key State and Regional Actions

**Tie Money to Performance.** Prioritize state and regional infrastructure funding to regions and local governments with adopted plans that reduce VMT and address the affordable housing crisis.

**Craft Regional Plans that Minimize GHG Pollution.** Establish GHG reductions as a fundamental goal of Regional Blueprint efforts and Regional Transportation Plans. The State should significantly increase funding for expansion and implementation of Regional Blueprint efforts.

**Prioritize Transit and Sustainable Transportation.** State and regional agencies should focus new transportation funding on strategies that can significantly reduce GHG pollution such as: bicycle and pedestrian infrastructure, Bus Rapid Transit projects, expanding and integrating state and regional rail networks, and public/private partnerships for housing and job development near TOD (transit-oriented development).

## Key Local Actions

**Define Where Growth Should Not Occur.** Establish policies to protect agricultural areas, watersheds and wildlife habitat from development.

**Define Where and How Growth Should Occur.** Develop general plan language, specific plans, and zoning ordinances that direct development to areas already served by infrastructure and close to public transit.

**Engage the Community in Planning.** Communities will be more supportive of new development if it meets their needs and preserves existing assets. In particular, under-represented communities need to be engaged in long-term planning.

**Address Environmental Justice Concerns.** Local jurisdictions should ensure that, in low income communities, air quality, mobility, jobs, and quality of life issues are addressed and existing residents and local businesses are not displaced by new development.